

Title : TREATMENT OF ACUTE HERPES ZOSTER NEURALGIA BY EPIDURAL INJECTION OR STELLATE GANGLION BLOCK.

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Introduction. Post herpetic neuralgia frequently is extremely painful, incapacitating, depressing, and sometimes lifelong. Bonica¹ reported beneficial results with paravertebral somatic-sympathetic blocks in most patients treated during the acute phase of herpes zoster, but poor results in those treated late. This study reports the use of segmental epidural, or stellate ganglion blocks for this condition.

Methods. Thirty-eight patients with onset of symptoms from eight days to three months were treated. Informed consent including use of photographs was obtained from each patient. Authorization of the hospital research committee was not required as standard methods of treatment were used.

Two to four spinal dermatomes usually were involved, ranging from T₁ to L₅. The only cranial nerve affected in this series was C₅ (1, 2, or 3 divisions). All cases were unilateral, characterized in the first one to three weeks by vesicles and pain. Thoracic segments were most frequently involved. Since herpes zoster often resolves spontaneously, only those patients with significant and unrelenting pain were treated. Treatment consisted of 0.25% bupivacaine: 10 milliliters for stellate ganglion block for cranial nerve involvement; or segmental epidural injection of 5 to 8 milliliters as close to the involved spinal segments as avoidance of the skin lesions would allow. Sympathetic block, especially at thoracic levels is best achieved with low concentrations of anesthetic agents in the epidural space.² Several segments may be blocked with a single injection, location is precise, and the method is safe. Blocking a few segments rarely causes hypotension or other systemic effects, except that some thoracic blocks may effect cardiac accelerator nerves and the splanchnic system, occasionally requiring supportive treatment. Most patients were outpatients, going home with help in one to three hours.

Results: All patients treated within 24 days of the onset of lesions had complete and permanent relief of pain (follow-up 6 to 30 months). Typically, pain disappeared within minutes of the injection. In most patients some pain returned in 12 to 24 hours, but to one-half or less of the pre-block intensity. Patients with active lesions showed remarkable improvement in 24 hours. Vesicles dried and erythema diminished. If after 24 hours there was significant return of symptoms, 1 to 3 repeat blocks were given until pain was relieved completely, or was negligible.

Those patients (10) whose blocks were begun 25 days or more after onset of symptoms experienced some hours of pain relief, but none had significant or lasting relief even after several blocks.

Discussion: Herpes zoster is an acute viral ganglionitis of dorsal nerve roots, with extension peripherally and probably centrally. It is not known how sympathetic or somatic-sympathetic blocks relieve this condition. Perhaps ischemia from vascular spasm is overcome and perfusion improved. Whatever the mechanism, the rapid improvement from early blockade is dramatic. Contrary-wise, the results of late treatment of any kind is poor and discouraging. After 25 days herpetic pain appears to become "centralized," as even rhizotomy, or cordotomy fails to provide relief. Early treatment is imperative and segmental epidural or stellate ganglion blocks are effective methods.

References:

1. Bonica John J. The Management of Pain. Philadelphia, Lea & Febiger, 1953, pp. 863-866.
2. Bauman J, Fletcher G: Pulmonary Sympathetic Blockade in Pulmonary Vasoconstriction and RDS. Anesthesia and Analgesia 46, 6: 785-789, 1967.